18. BEHAVIOUR, COLORATION, LEPIDOSIS AND PRE-ANO-FEMORAL PORES IN JUVENILES OF *UROMASTIX HARDWICKII* GRAY

The behaviour of juveniles is scarcely known in Indian agamids. Bhanotar & Bhatnagar (in press)[1] observed the presence of a brood chamber in some tunnels which may start as a separate diverticule close to the burrow mouth. Outside movements of juveniles are restricted to the vicinity and around neighbouring bushes within a range of 20-40 ft of the tunnels. Juveniles from other burrows too join and do not show territorial instinct unlike adults. However, juveniles show considerable homing instinct. But if alarmed suddenly seek safety in the nearest available burrow or crevice. Juveniles up to 29-40 days old do not dig a burrow and continue to inhabit the parent burrow. This perhaps indicates some tolerance by the parent. Though active and swift, the juveniles can still be caught easily. In nature and in captivity juveniles eat small insects and wild seeds (?). This dietary habit, it appears, continues up to the adult stage. In captivity (in uncontrolled cage) they remained active up to two months. But some survived till subadult stage.

Coloration: Though the general coloration pattern is the same in juveniles and adults, yet, it is varied in the former by the presence of a lateral dark stripe on trunk preceded by a pale buff line and dark broken blotches numbering 7-8 with pale buff all around. These blotches are seen in 25-30 days old individuals and are anteriorly joined. They are not present in subadults. A continuous dark stripe is present dorso-laterally on tail. The black blotch on hind limb is dorso-anteriorly present as in adults, but covers only 4-7 scale length. Individuals are ventrally pale coloured from *genial* to last 4th caudal scale whorl.

Anteriorly, the facial markings from *supra-labial* to *supra-ocular* region differ from that in adults by the presence of 5-7 dark lines with a dark line from *post-ocular* to *occipital region*. *Gular fold* and *gular pouch* are absent but *pre-gular* fold is present and the whole gular region is pale buff.

Lepidosis: There is a vertical abdominal suture mark, the umbilical scar which appears from where yolk sac is attached and is bordered by distinct 15-19 horizontal scales on each side. Caudal whorls start from anal point where one small dorso-lateral spine is present. Total complete whorls numbered 30-37 and last 2-5 are incomplete. *Latero-caudal* spines are continuous from 3rd whorl upto 2nd or to 5th. Larger spines are on lateral side and are preceded by 3-4 small ones. Similarly on ventral side smooth scales are present from 3-5th caudal whorl in preceding order (of size) from lateral margin to tail tip. Larger caudal spines are present on 4 to 5th row. Spines on hind limbs numbered 3-5 located not antero-lateral as in adults.

Lateral fringe on 3rd to 4th toe not at all pronounced. Scales around pineal eye numbered six with eye in the middle scale. However, in some 8 scales are present around it. Rostral is succeeded by 6-8 scales upwards to frontal region. Genials 13 with a upper dif-

[1] BHANOTAR, R. K. & BHATNAGAR, R. K. (in press): Bio-ecological studies on spiny-tailed lizards *Uromastix hardwickii* Gray. Pt. I. Habits, habitats, distribution patterns and behaviour. *Cheetal.* (*J. Wildlife Preservation Society of India*), pp. 1-23, 1 fig.

ferentiable layer of scales and 7-8 scales as counted across from *gular end* to *mid-genial*. Other lepidosis counts are not different in juveniles from adults.

Pre-ano-femoral pores: Location of these pores in juveniles is same as in adults. But both types of pores (preanal anterior to anal opening and femoral on thighs) are in one continuous line. However, *preanal-pores* are on an angular vedge (inverted 'v') anterior to the anal opening and number 4-5 on each arm. The *femoral pores* commence from femoral point to the vedge of the *anal-pores* and number 7-14 on each side of the arm. However, both types of pores are bordered by 4-6 differentiable scales around each pore. In some cases, the number on each side varies and in one case two femoral pores are joined. In live juveniles it was also observed that by pressing a coverslip on these pores no secretion was exuded; also, such individuals did not show development of gonads. This appears to indicate that presence of these pores is not a morphological character age differentiation and sexual maturity and is not a sexual dimorphic character as has been shown in Gekkonids.

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19. EXTENSION OF DISTRIBUTION OF *THRISSINA BOELAMA* (FORSKAL) (PISCES: CLUPEIFORMES: ENGRAULIDAE) WITH REMARKS ON ITS TAXONOMIC CHARACTERS

Though the anchovy species *Thrissina boelama* was described as early as 1775 (Forskal 1775), it was rarely recorded from Indian Coast indicating that it is a very rare species.

Recently while studying the Clupeoid fishes of southeast coast of India, I came across one specimen of *Thrissina boelama*, whose description is given below briefly.

Material: One example from Amalinagar Fishing Village 45 km south of Tuticorin, Tamilnadu, K. V. Rama Rao, 30-i-1973.

Description: Body somewhat full (compared to *Thryssa*), elongated. Head enlongated with somewhat prominent snout. Eye in the anterior half of the head. Belly not sharply keeled. Two scutes before pectoral origin remaining scutes before and after ventral fin base. Maxilla extending upto the margin of preopercle but not quite reaching it. Two premaxillae on the maxilla. Maxilla flattened towards the end before becoming pointed at the tip. Lower edge of maxilla is finely toothed all along the length. Mandible is also similarly toothed along the upper edge. Pectorals do not reach upto ventral fin origin. Elongated axillary scale present at pectoral origin. Ventrals originate slightly before dorsal. Anal origin just behind Dorsal. Caudal deeply forked. Scales fairly large and intact even in preservation. Dorsal side dark in colour becom-